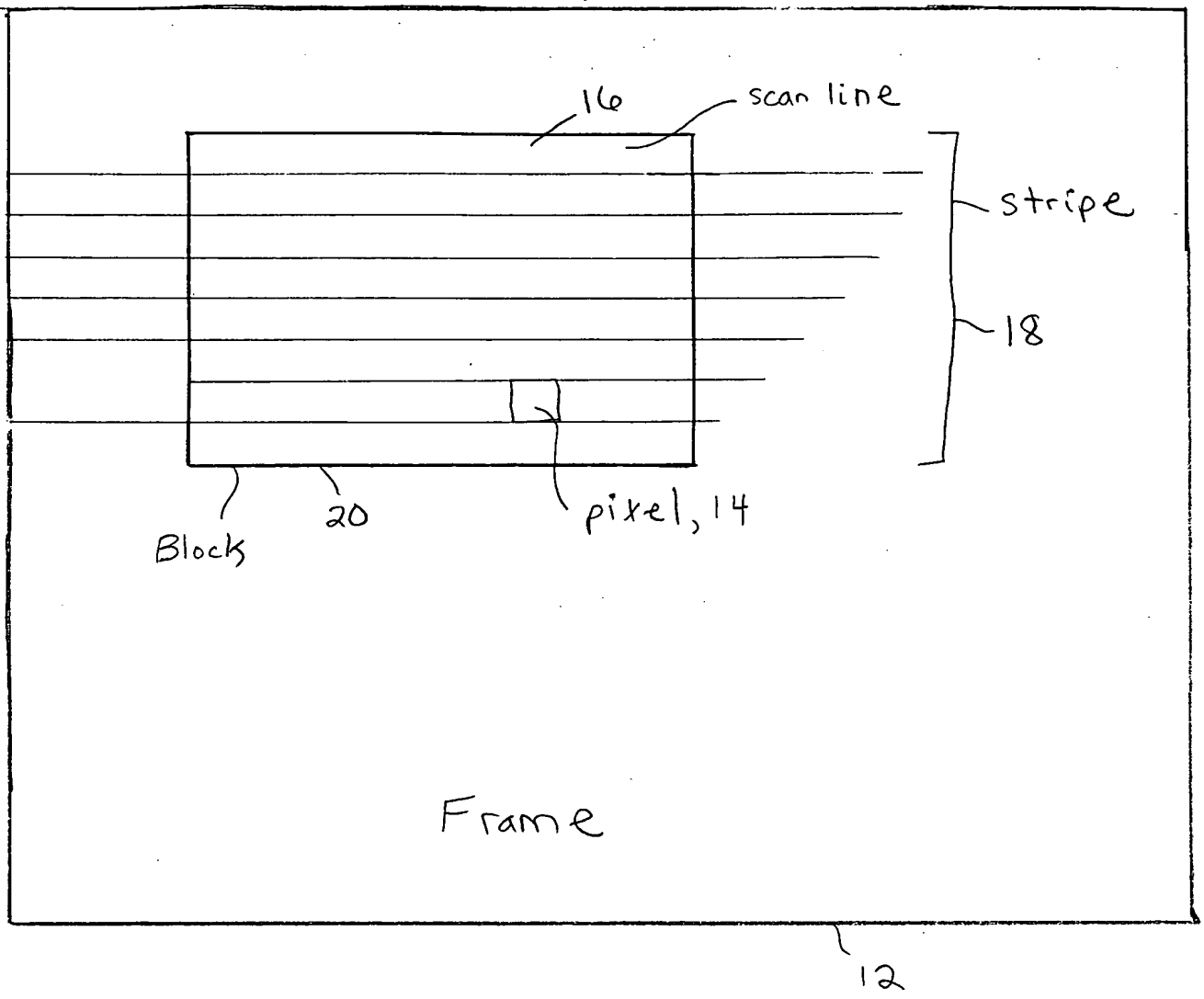
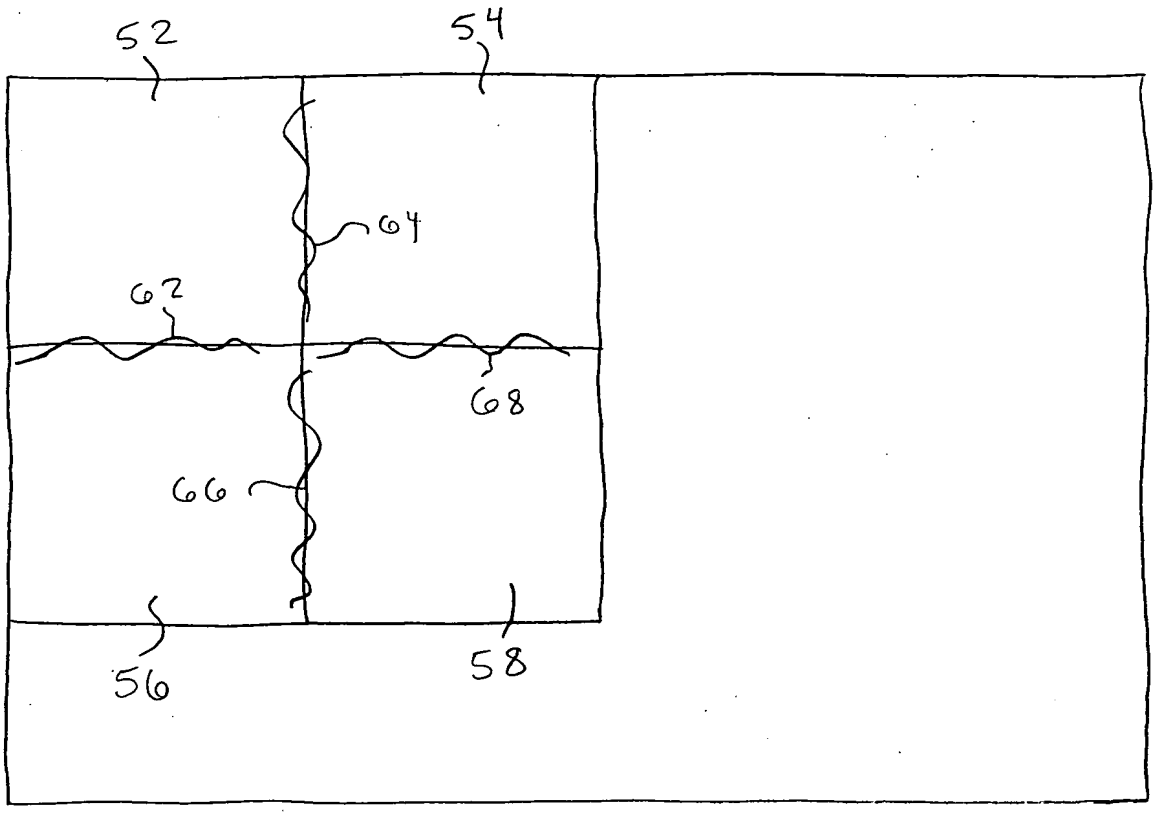
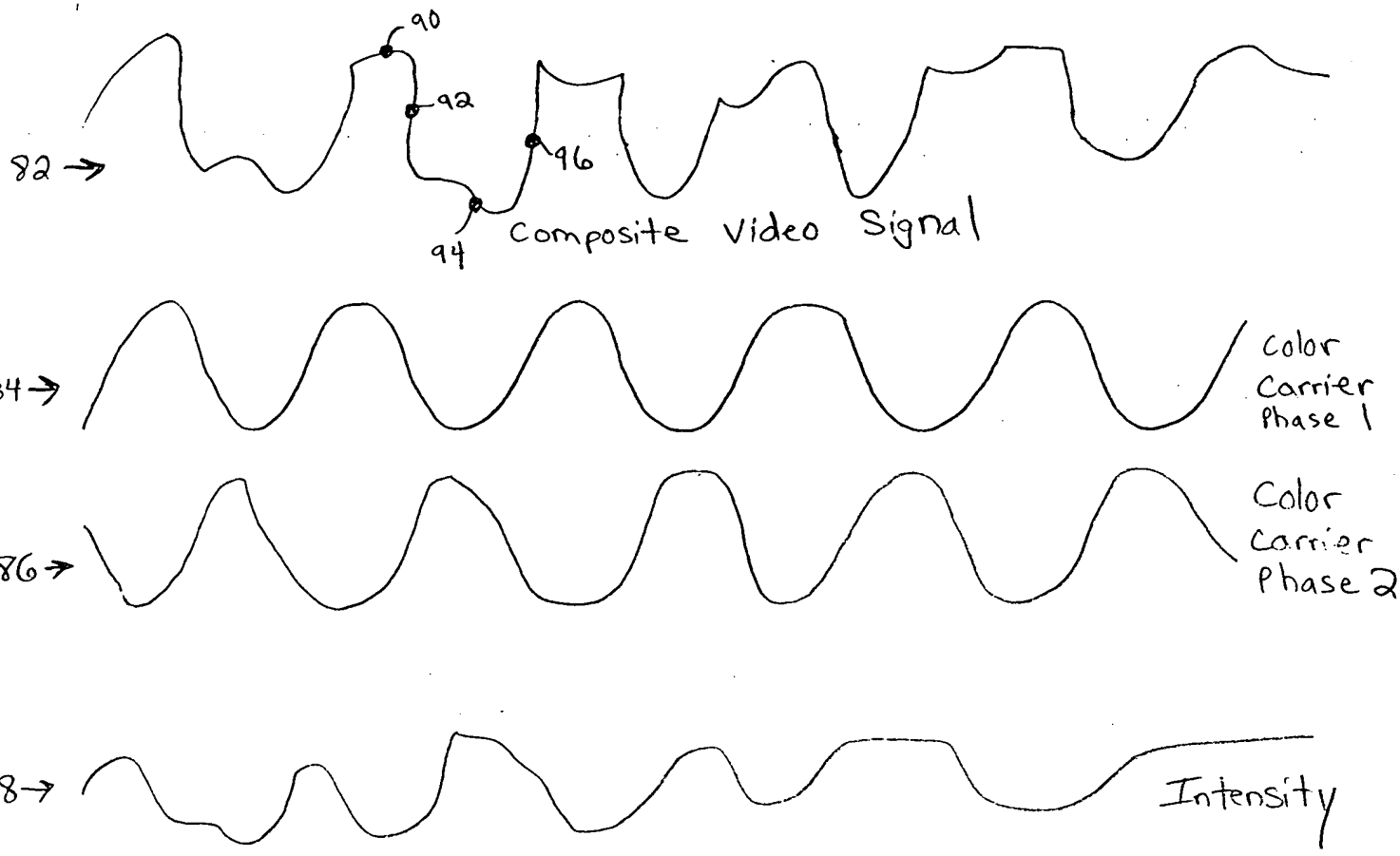


Fig. 1
(prior art)



50

Fig. 2
(prior art)



80

Fig. 3
(prior art)

Fig. 4

100

Video Flow

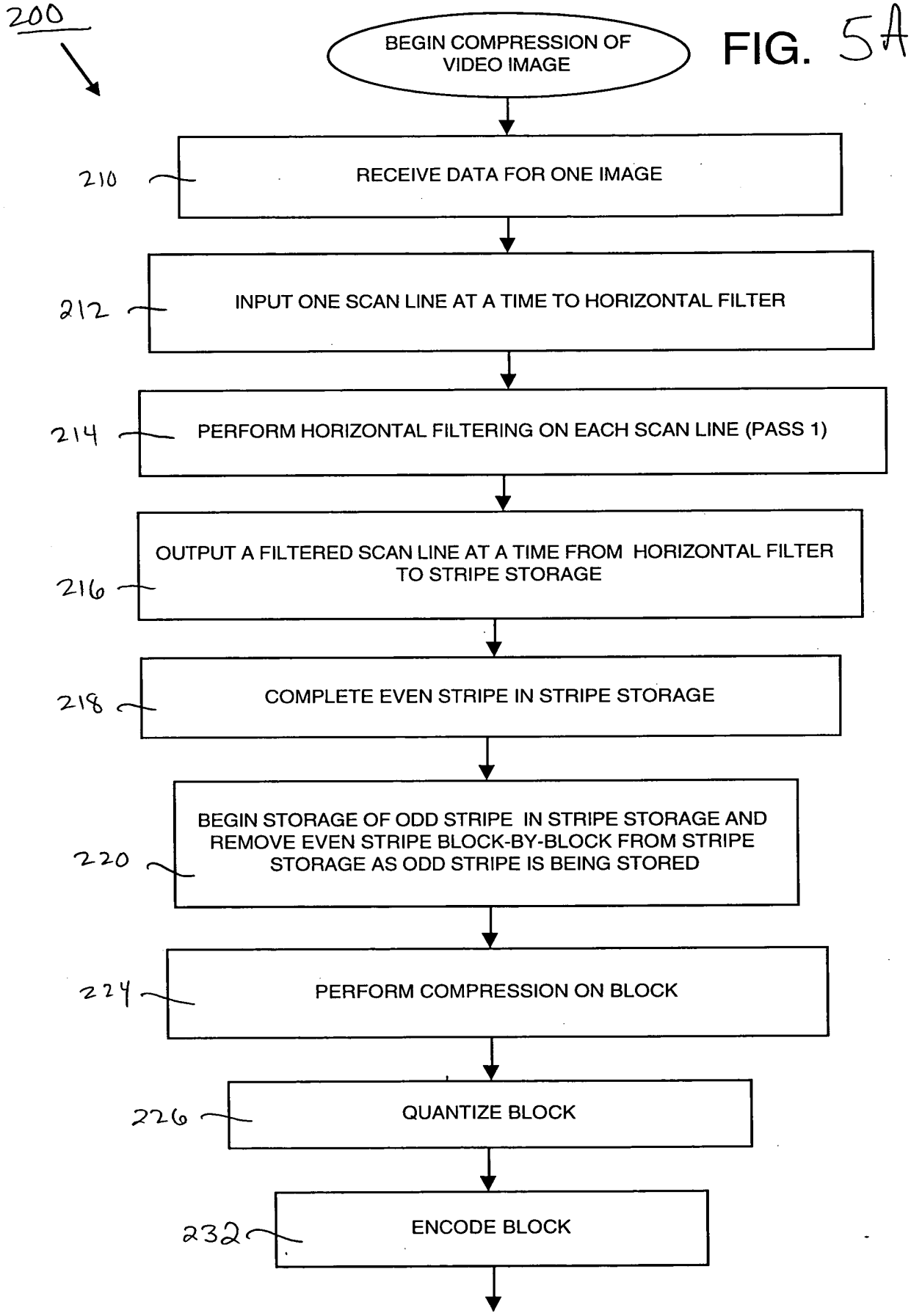


FIG. 5A

Exhibit 1006, Page 56 of 68

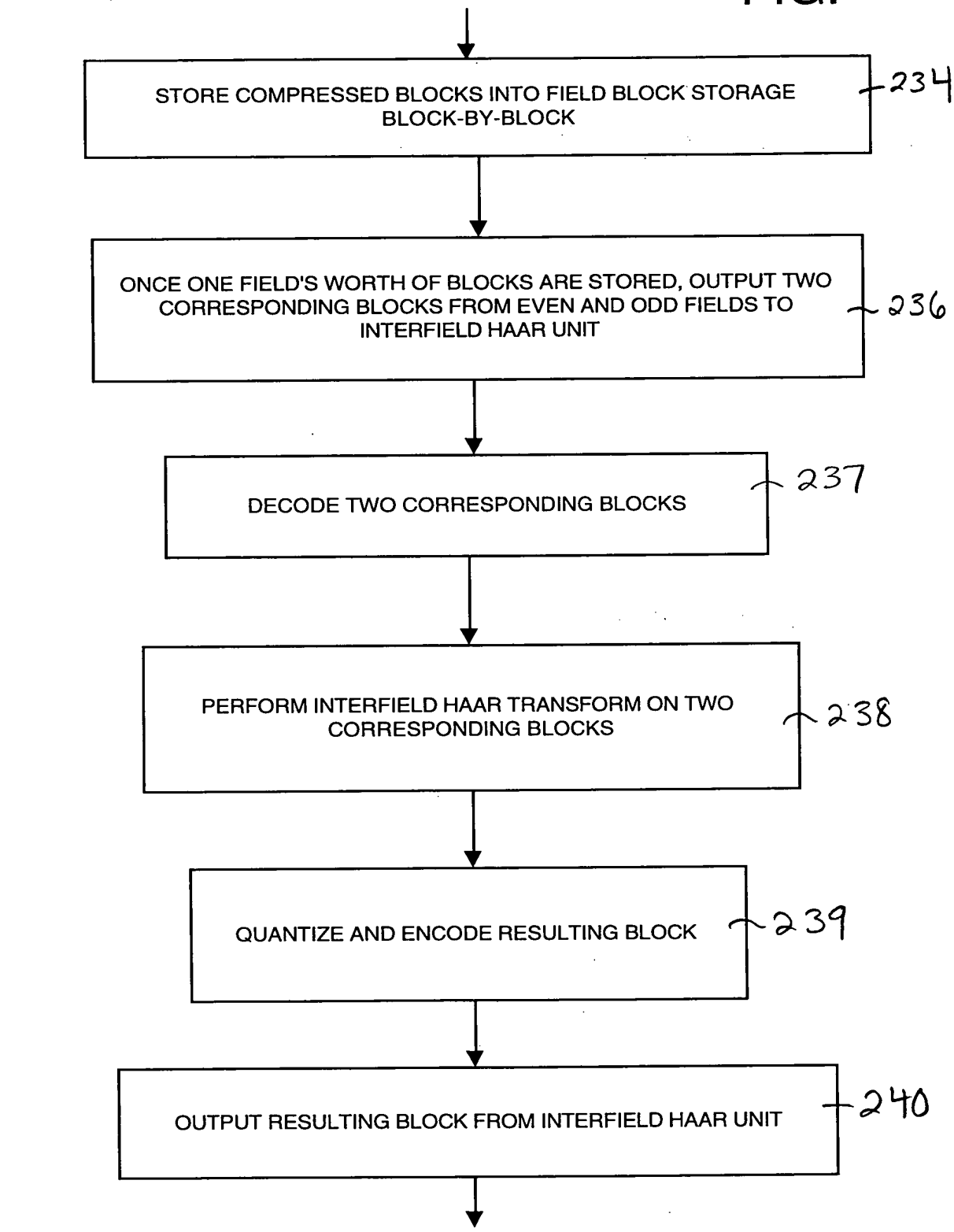

200
STORE COMPRESSED BLOCKS INTO FIELD BLOCK STORAGE BLOCK-BY-BLOCK
234
ONCE ONE FIELD'S WORTH OF BLOCKS ARE STORED, OUTPUT TWO CORRESPONDING BLOCKS FROM EVEN AND ODD FIELDS TO INTERFIELD HAAR UNIT
236
DECODE TWO CORRESPONDING BLOCKS
237
PERFORM INTERFIELD HAAR TRANSFORM ON TWO CORRESPONDING BLOCKS
238
QUANTIZE AND ENCODE RESULTING BLOCK
239
OUTPUT RESULTING BLOCK FROM INTERFIELD HAAR UNIT
240

FIG. 5B

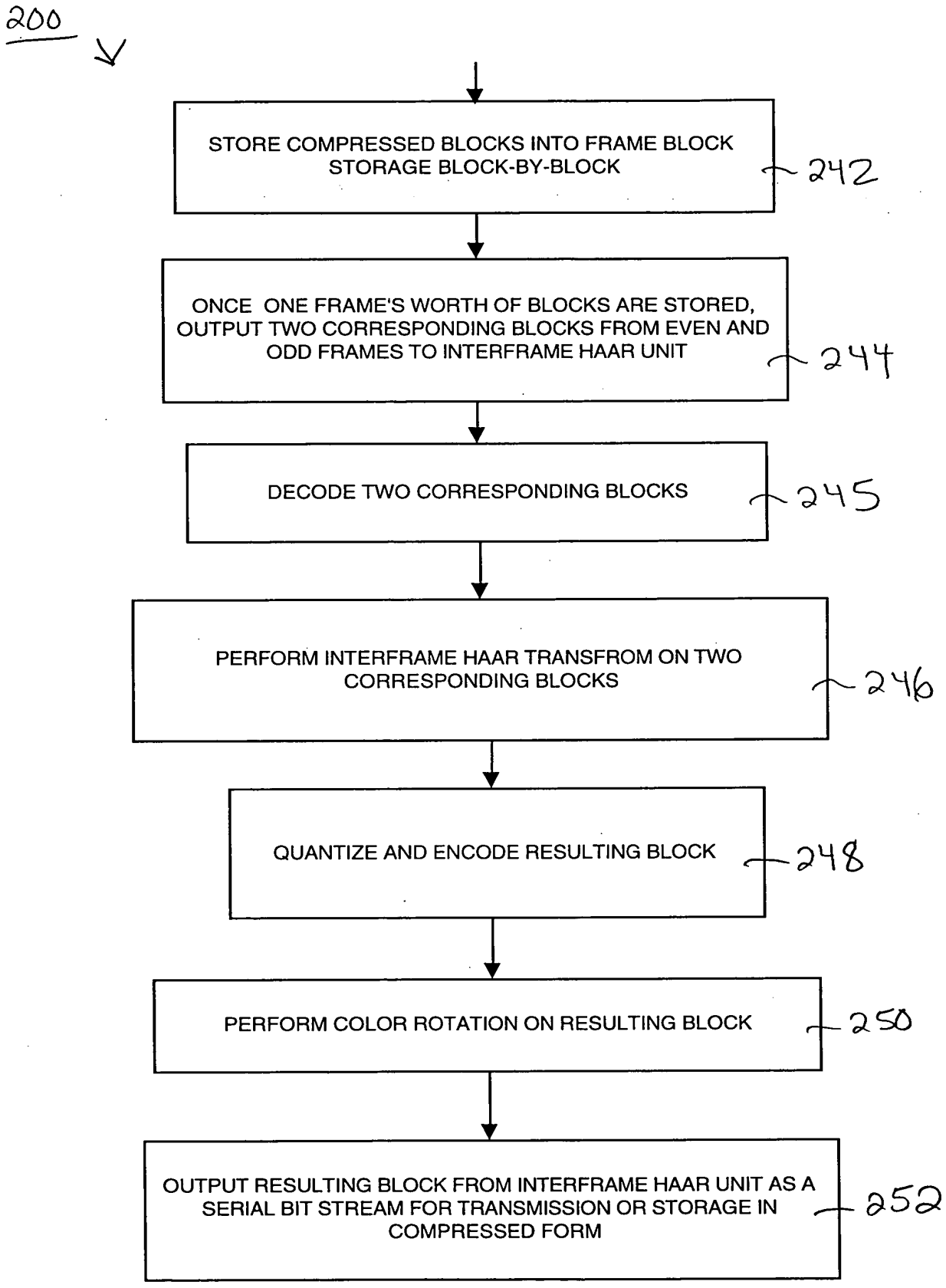

200
STORE COMPRESSED BLOCKS INTO FRAME BLOCK STORAGE BLOCK-BY-BLOCK
242
ONCE ONE FRAME'S WORTH OF BLOCKS ARE STORED, OUTPUT TWO CORRESPONDING BLOCKS FROM EVEN AND ODD FRAMES TO INTERFRAME HAAR UNIT
244
DECODE TWO CORRESPONDING BLOCKS
245
PERFORM INTERFRAME HAAR TRANSFROM ON TWO CORRESPONDING BLOCKS
246
QUANTIZE AND ENCODE RESULTING BLOCK
248
PERFORM COLOR ROTATION ON RESULTING BLOCK
250
OUTPUT RESULTING BLOCK FROM INTERFRAME HAAR UNIT AS A SERIAL BIT STREAM FOR TRANSMISSION OR STORAGE IN COMPRESSED FORM
252

FIG. 5C

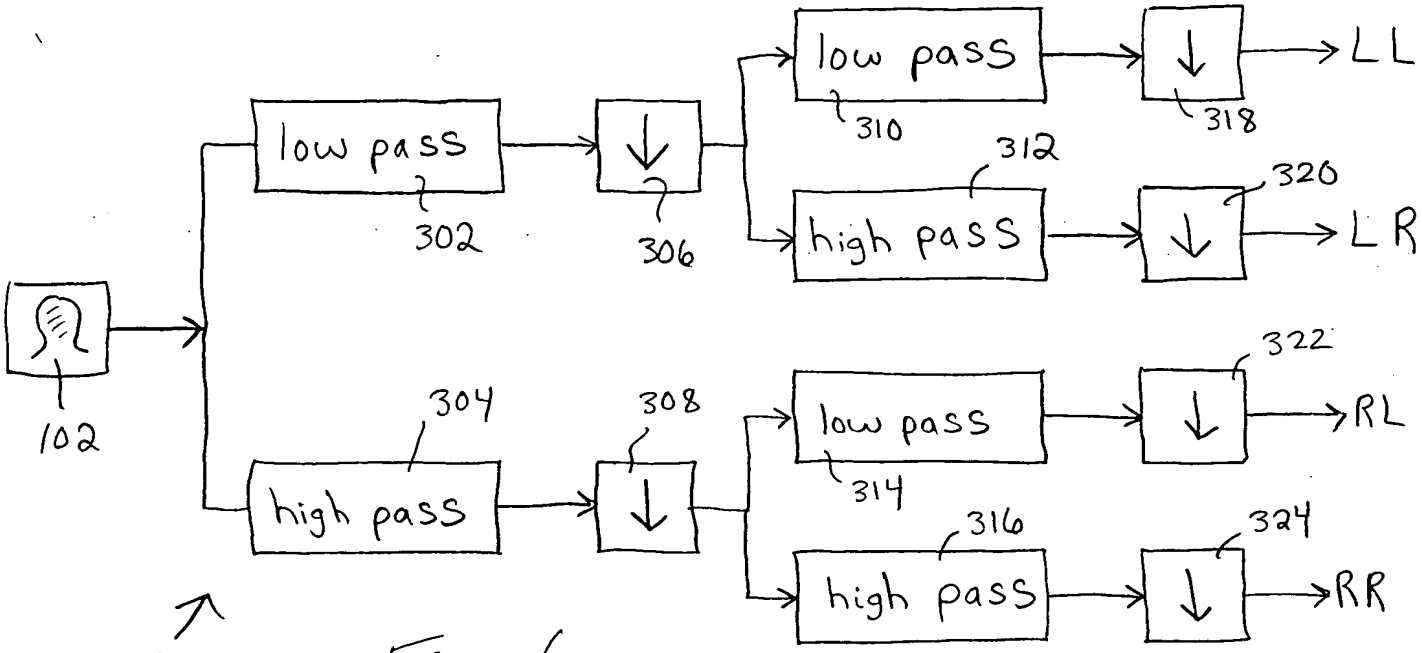


Fig. 6

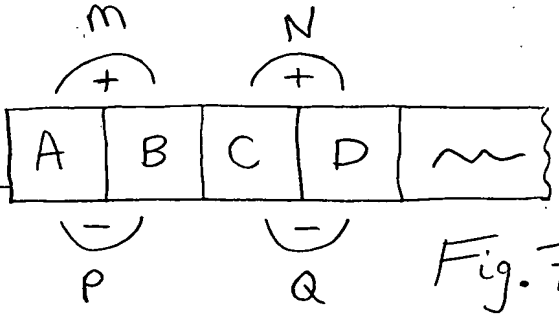


Fig. 7

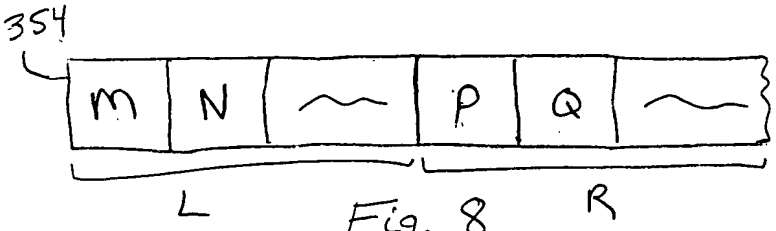


Fig. 8

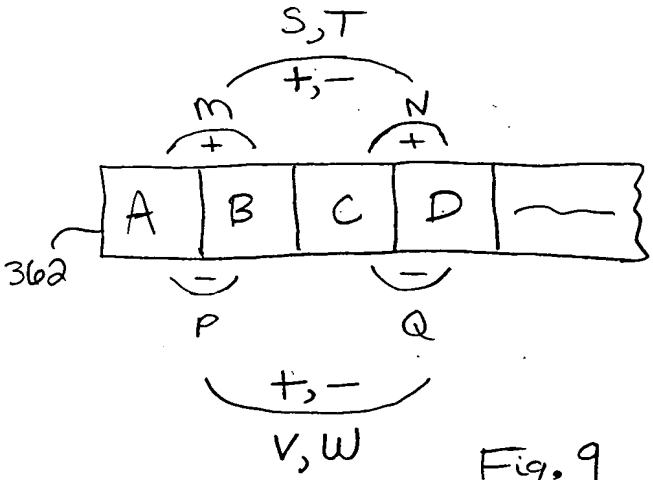


Fig. 9

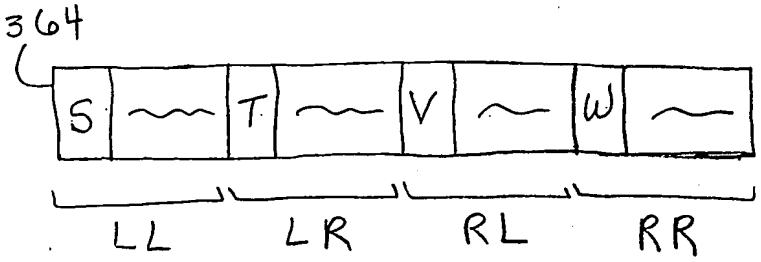


Fig. 10

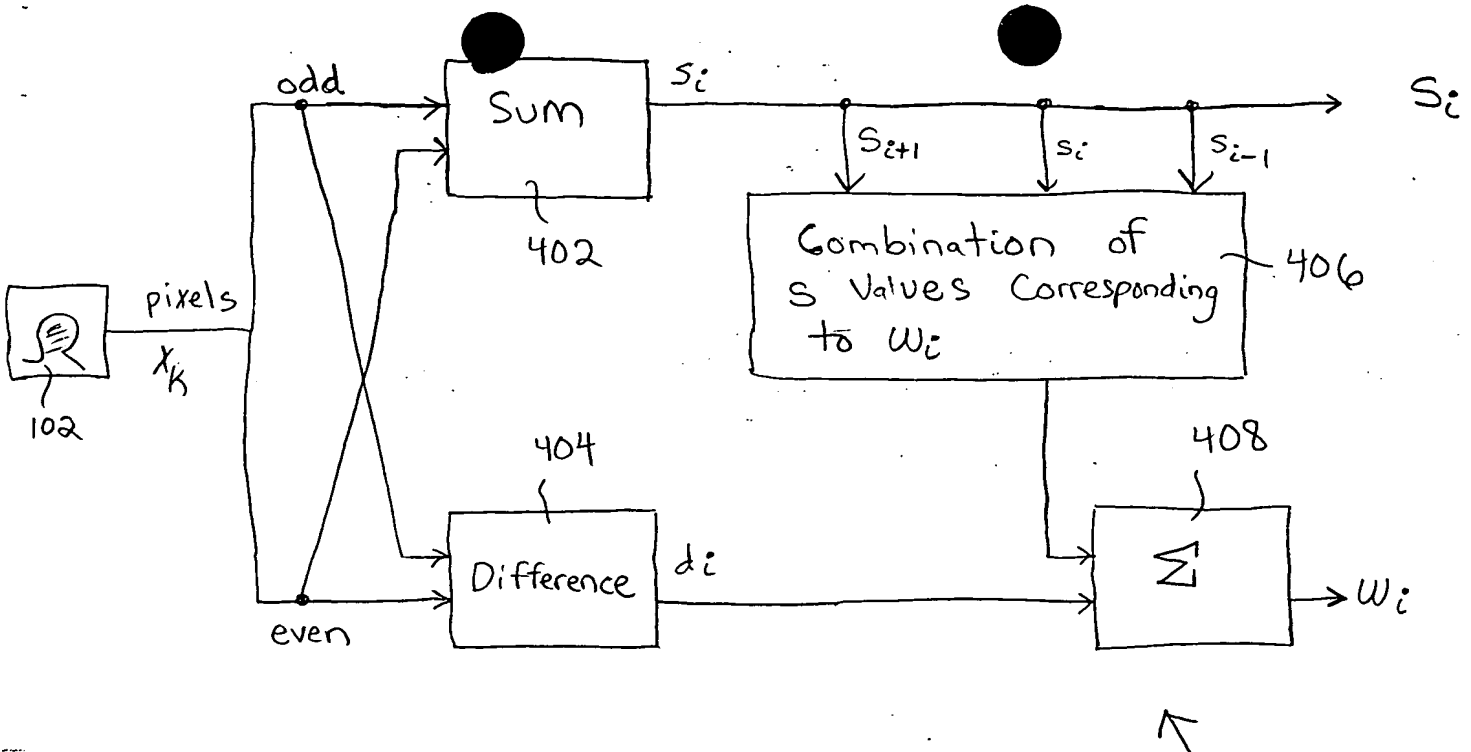


Fig. 11A

	S_0	S_1	S_2	S_3	S_4	S_5	...	S_{n-4}	S_{n-3}	S_{n-2}	S_{n-1}	← 410
w_0	$-3/8$	$1/2$	$-1/8$									420
w_1	$-1/8$	0	$1/8$									422
w_2		$-1/8$	0	$1/8$								424
w_3			$-1/8$	0	$1/8$							426
⋮												428
w_{n-3}								$-1/8$	0	$1/8$		430
w_{n-2}									$-1/8$	0	$1/8$	432
w_{n-1}									$1/8$	$-1/2$	$3/8$	434

412 ↑

409 ↖

Fig. 11B

86T50 T0162060

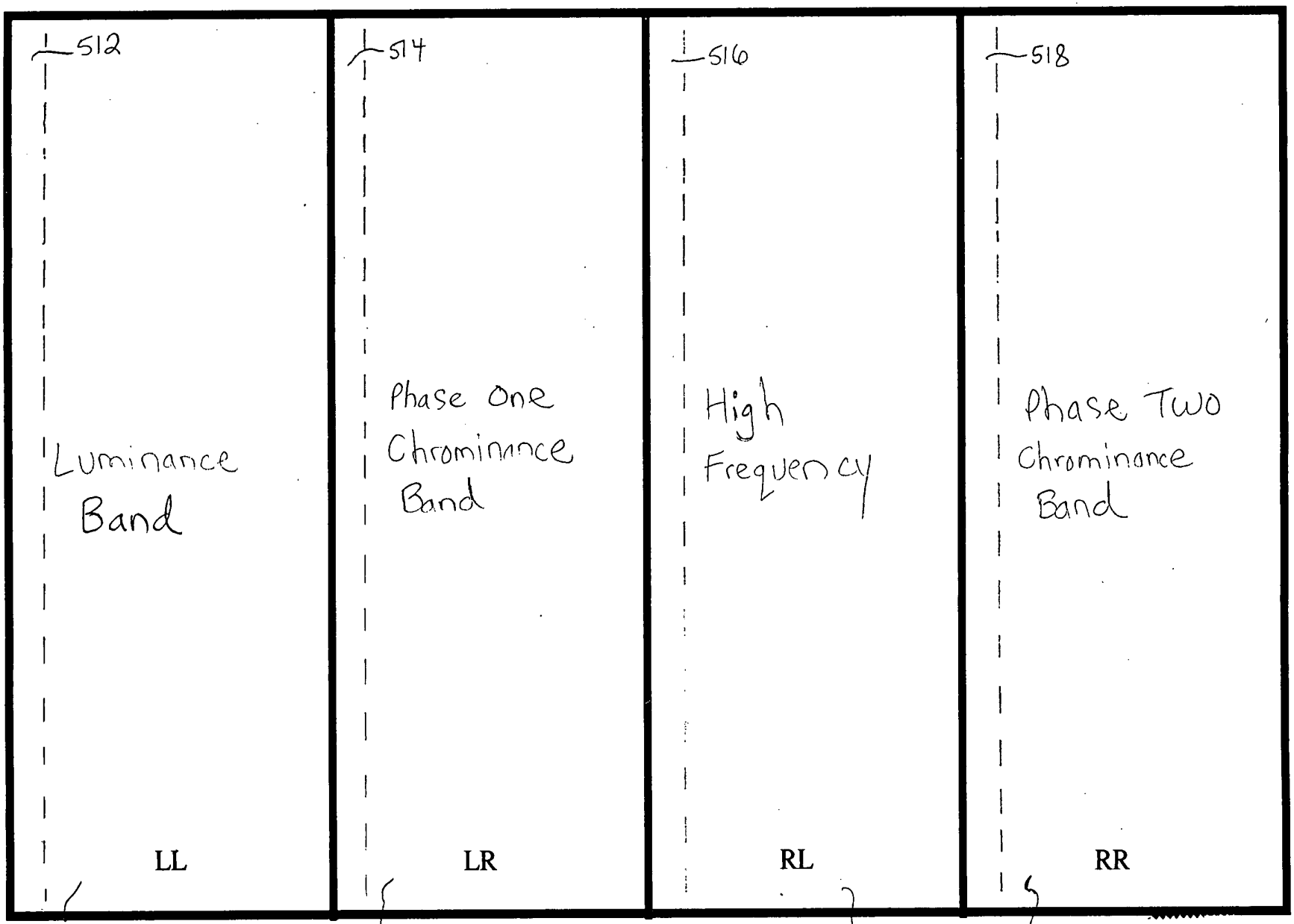


Fig. 12
Stripe After Horizontal Filtering

86T50 T0T6206D

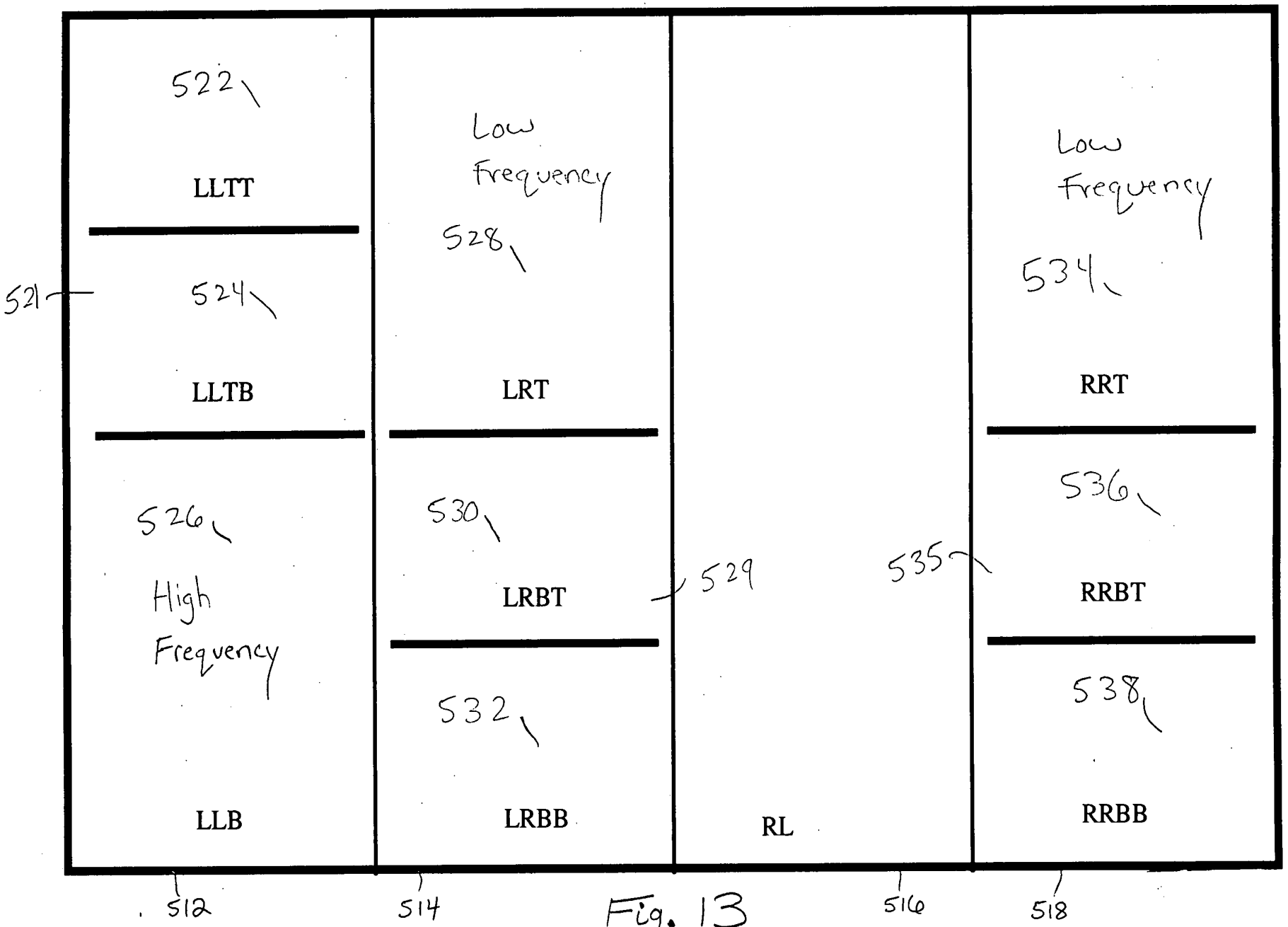


Fig. 13

Block After Pass 2 Filtering

520

86h750 T0T6C060

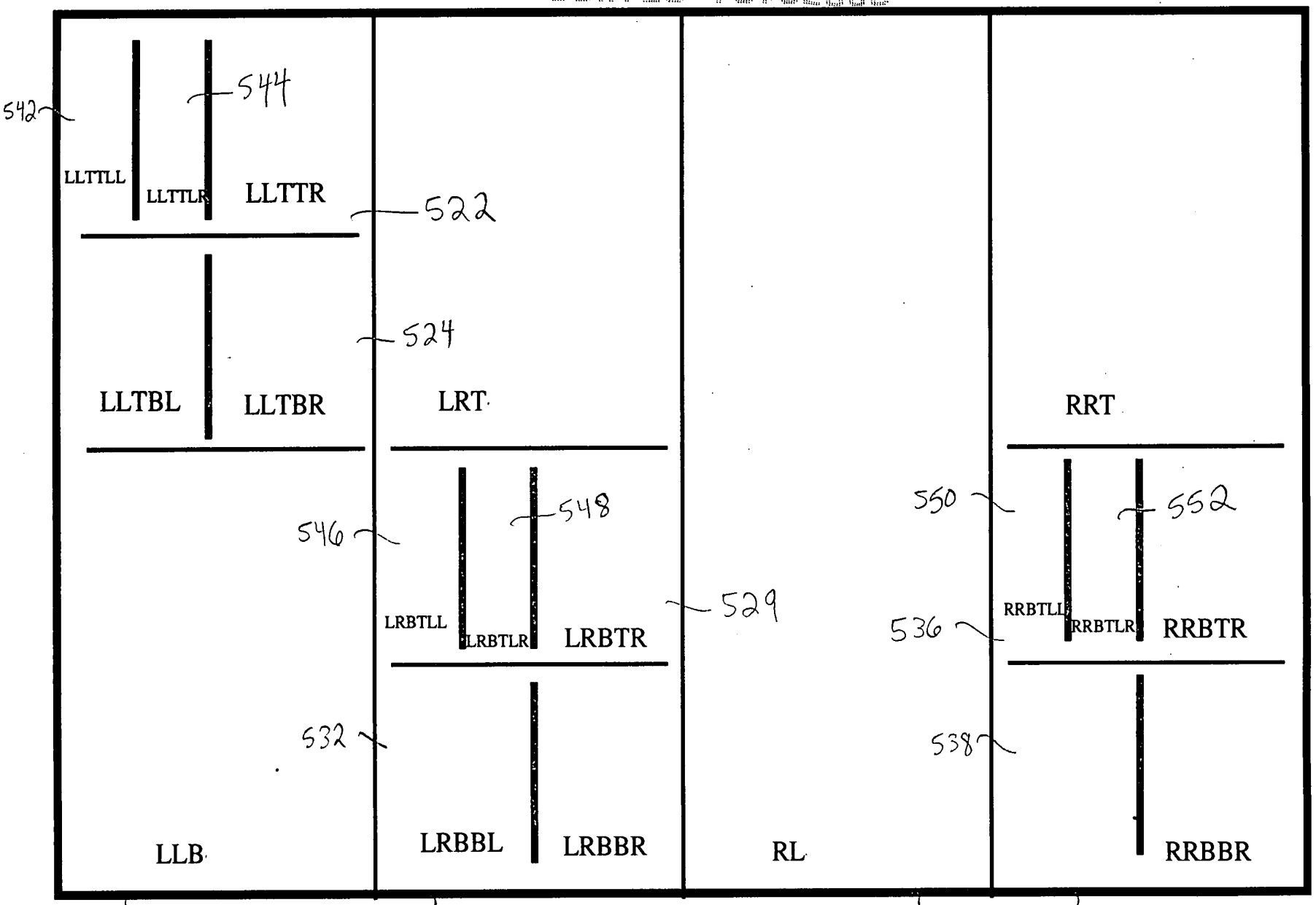


Fig. 14

Blocks After Pass 3 Filtering

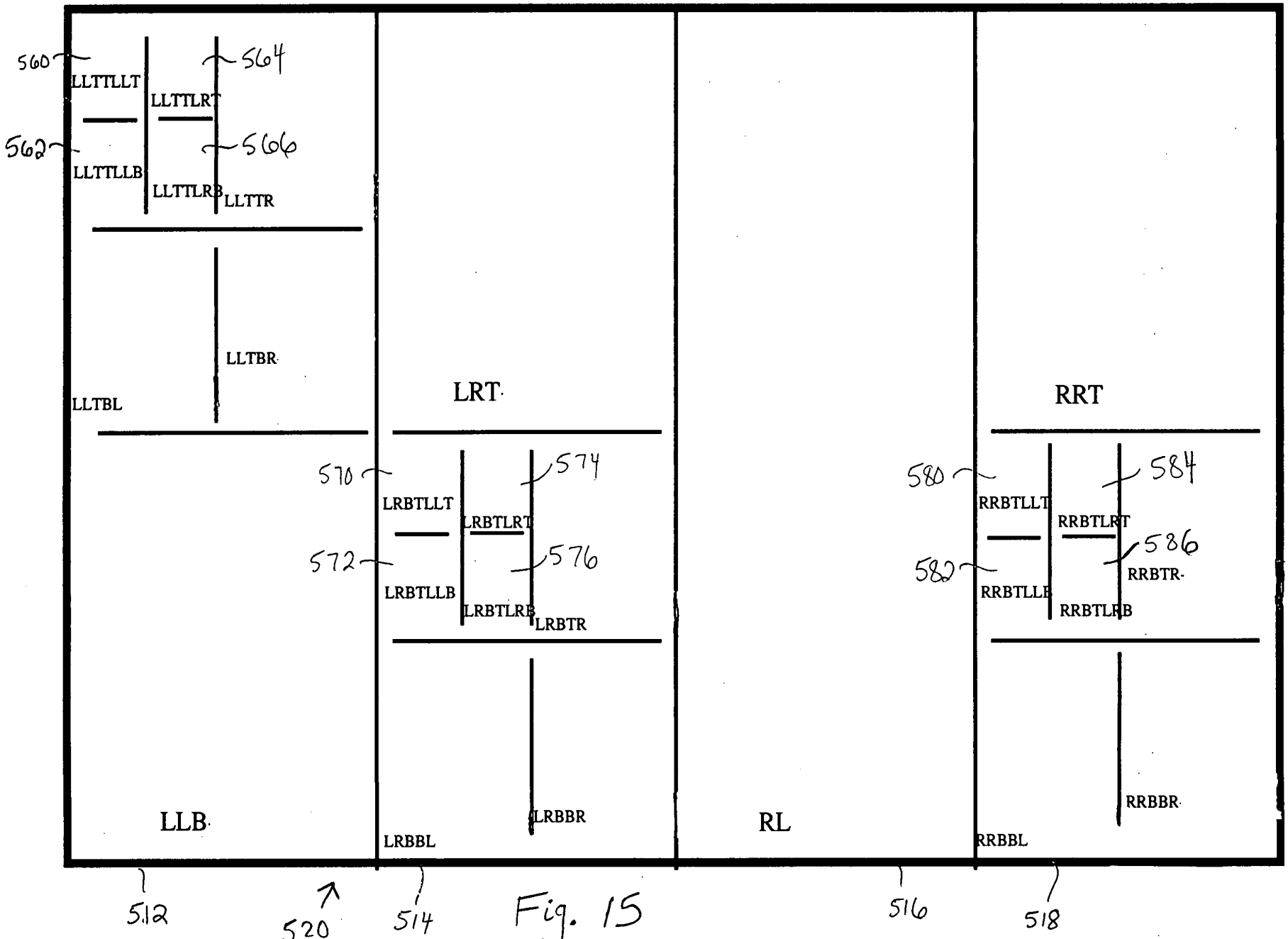


Fig. 15

Block After Pass 4 Filtering

86T50 T0T62060

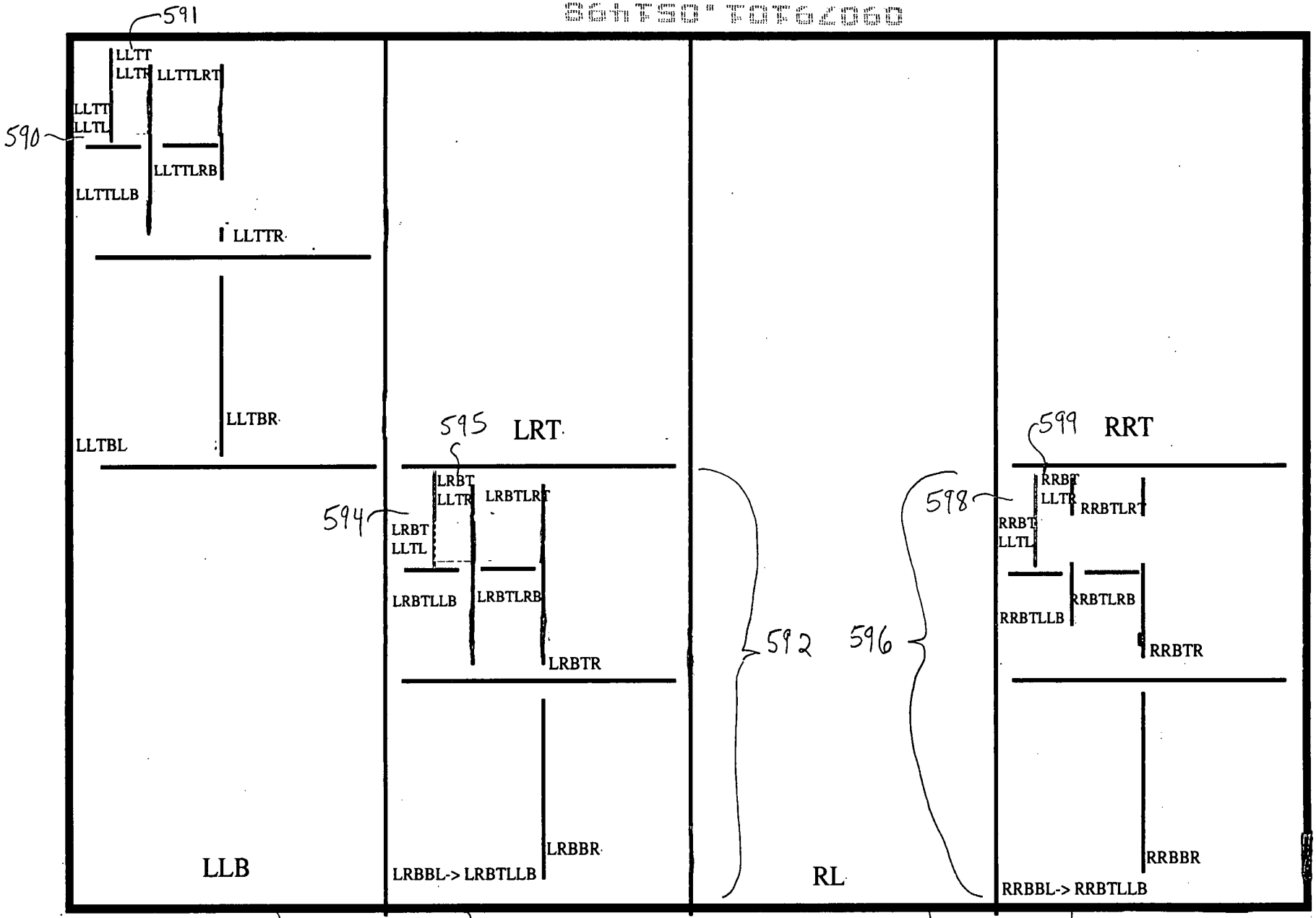
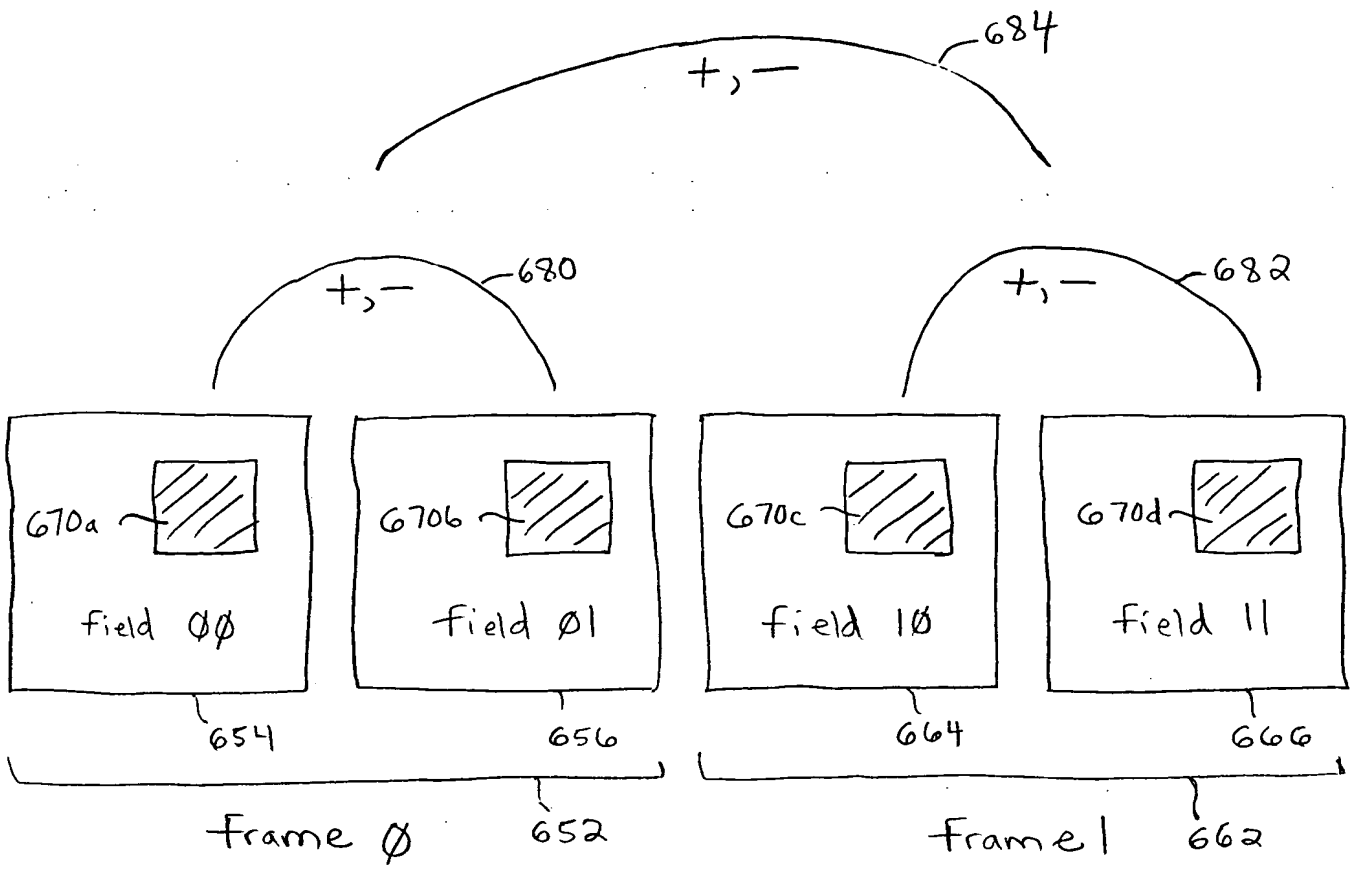


Fig. 16

Block After Pass 5 Filtering


684
+, −
680
+, −
682
+, −
670a
670b
670c
670d
field ØØ
field Ø1
field 1Ø
field 11
654
656
664
666
Frame Ø
652
Frame 1
662

650

Fig. 17

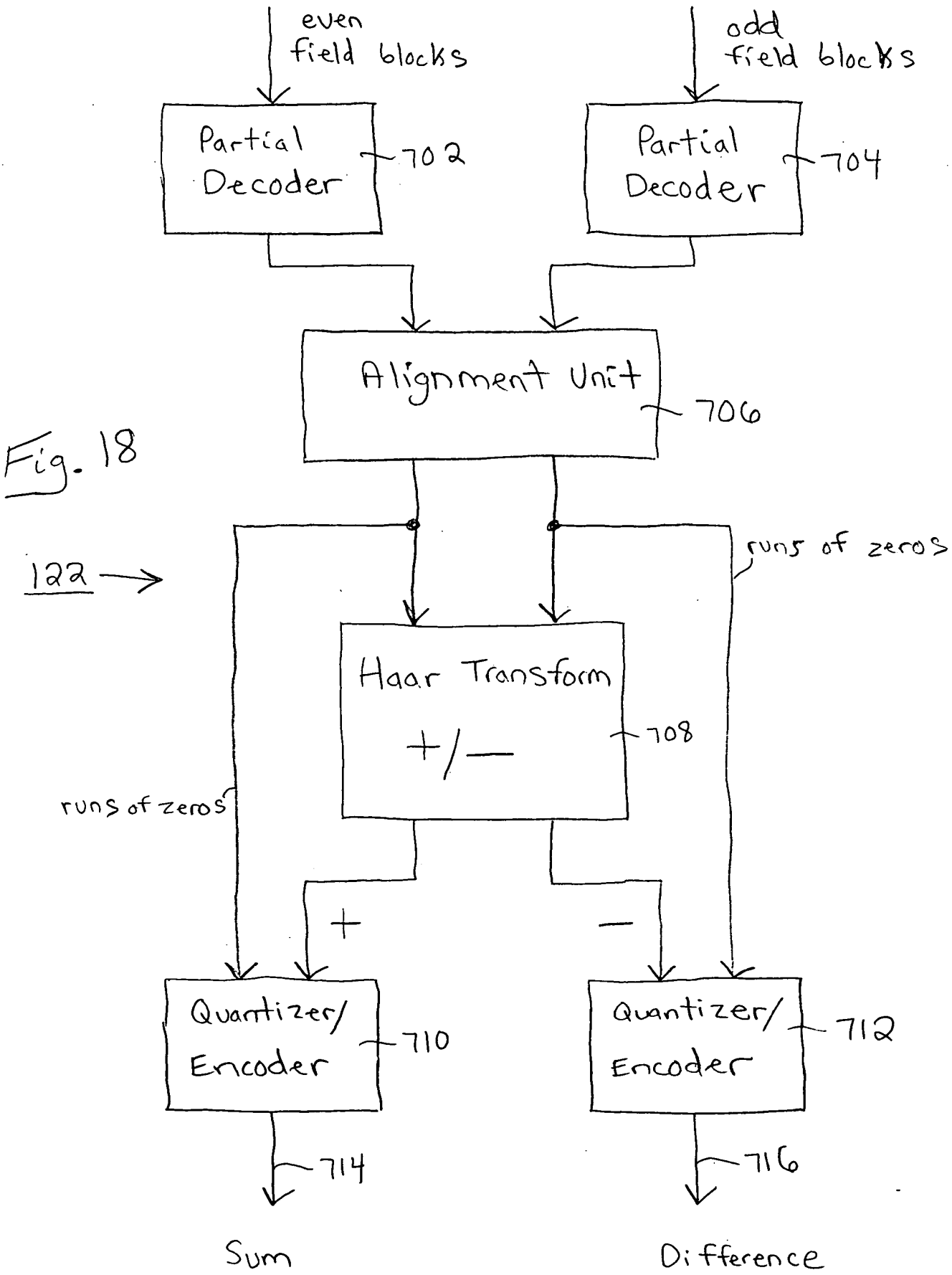

even field blocks
odd field blocks
Partial Decoder
702
Partial Decoder
704
Alignment Unit
706
122
runs of zeros
Haar Transform
+/—
708
runs of zeros
+
—
Quantizer/ Encoder
710
Quantizer/ Encoder
712
714
716
Sum
Difference

Fig. 18

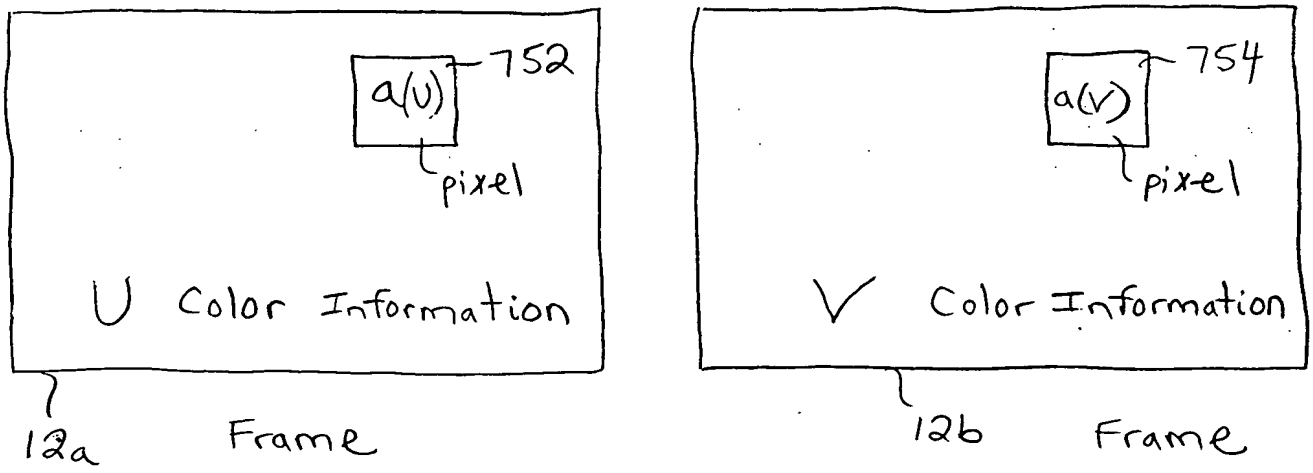


Fig. 19 (prior art)

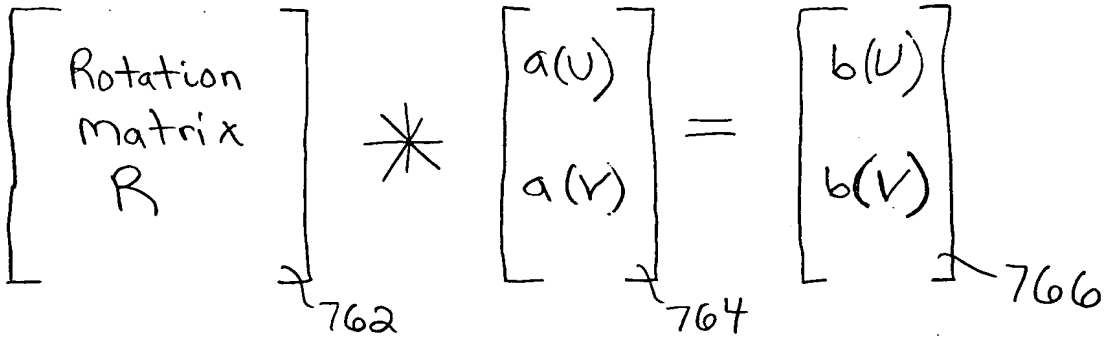
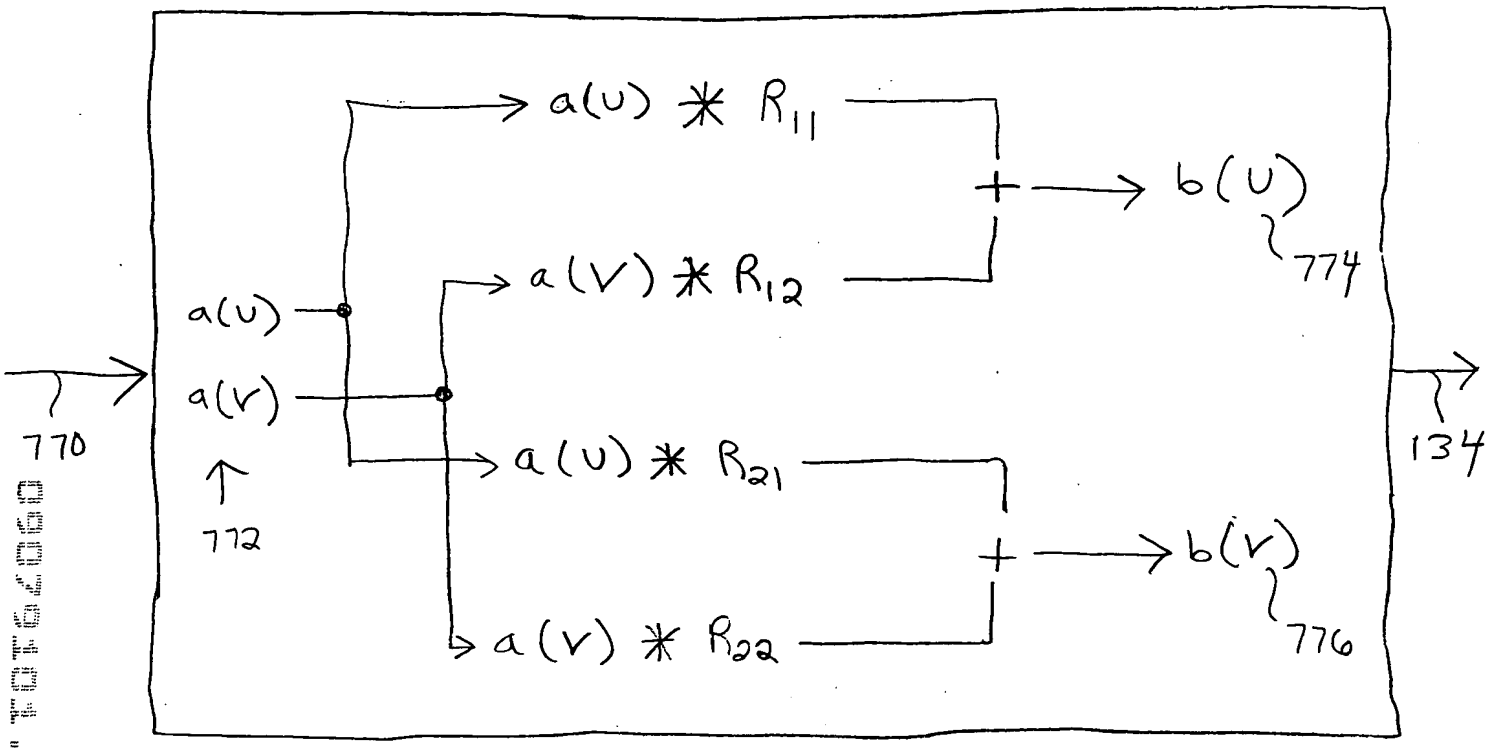


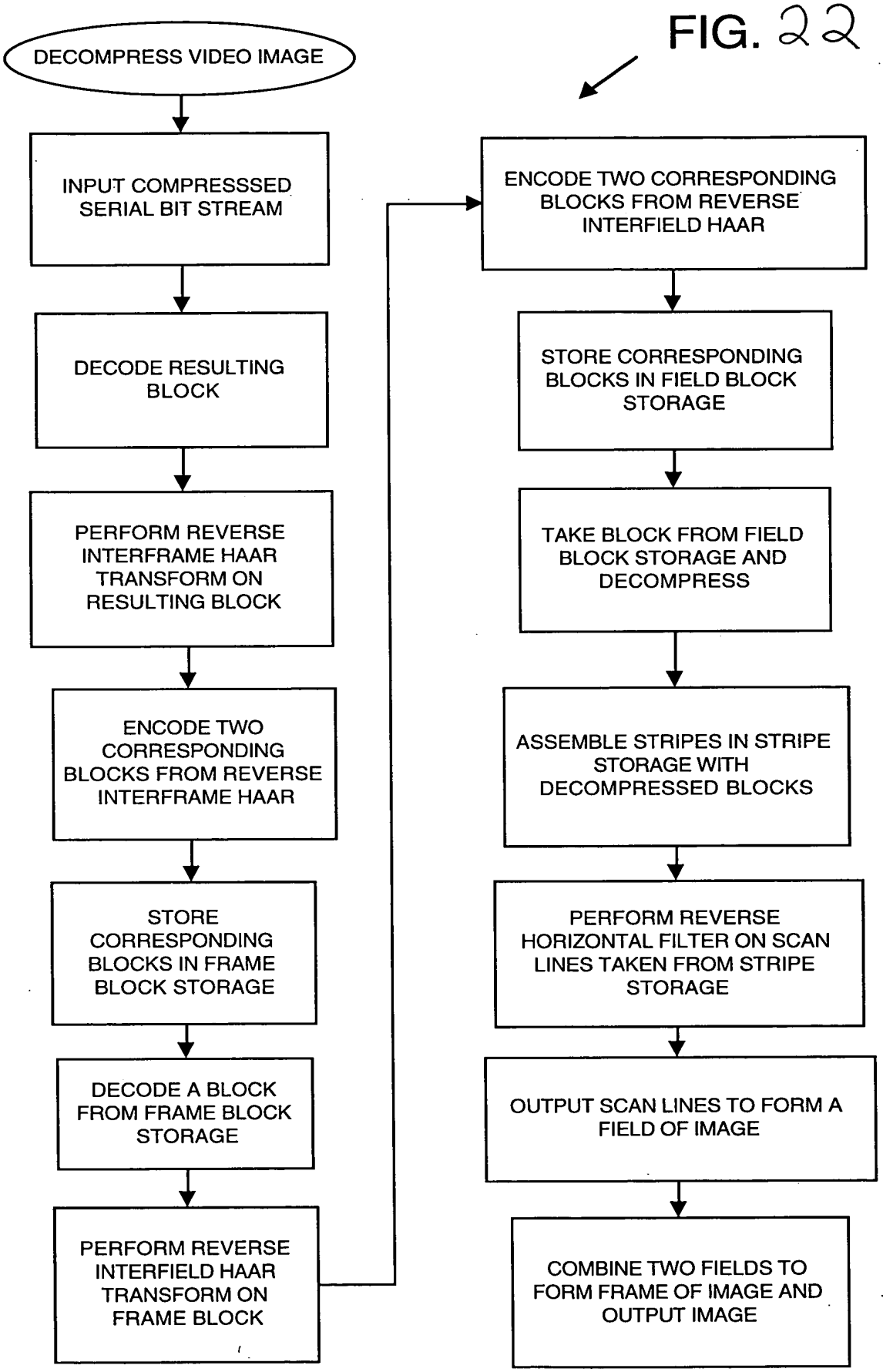
Fig. 20 (prior art)



132

Fig. 21

FIG. 22


DECOMPRESS VIDEO IMAGE
INPUT COMPRESSSED SERIAL BIT STREAM
DECODE RESULTING BLOCK
PERFORM REVERSE INTERFRAME HAAR TRANSFORM ON RESULTING BLOCK
ENCODE TWO CORRESPONDING BLOCKS FROM REVERSE INTERFRAME HAAR
STORE CORRESPONDING BLOCKS IN FRAME BLOCK STORAGE
DECODE A BLOCK FROM FRAME BLOCK STORAGE
PERFORM REVERSE INTERFIELD HAAR TRANSFORM ON FRAME BLOCK
ENCODE TWO CORRESPONDING BLOCKS FROM REVERSE INTERFIELD HAAR
STORE CORRESPONDING BLOCKS IN FIELD BLOCK STORAGE
TAKE BLOCK FROM FIELD BLOCK STORAGE AND DECOMPRESS
ASSEMBLE STRIPES IN STRIPE STORAGE WITH DECOMPRESSED BLOCKS
PERFORM REVERSE HORIZONTAL FILTER ON SCAN LINES TAKEN FROM STRIPE STORAGE
OUTPUT SCAN LINES TO FORM A FIELD OF IMAGE
COMBINE TWO FIELDS TO FORM FRAME OF IMAGE AND OUTPUT IMAGE

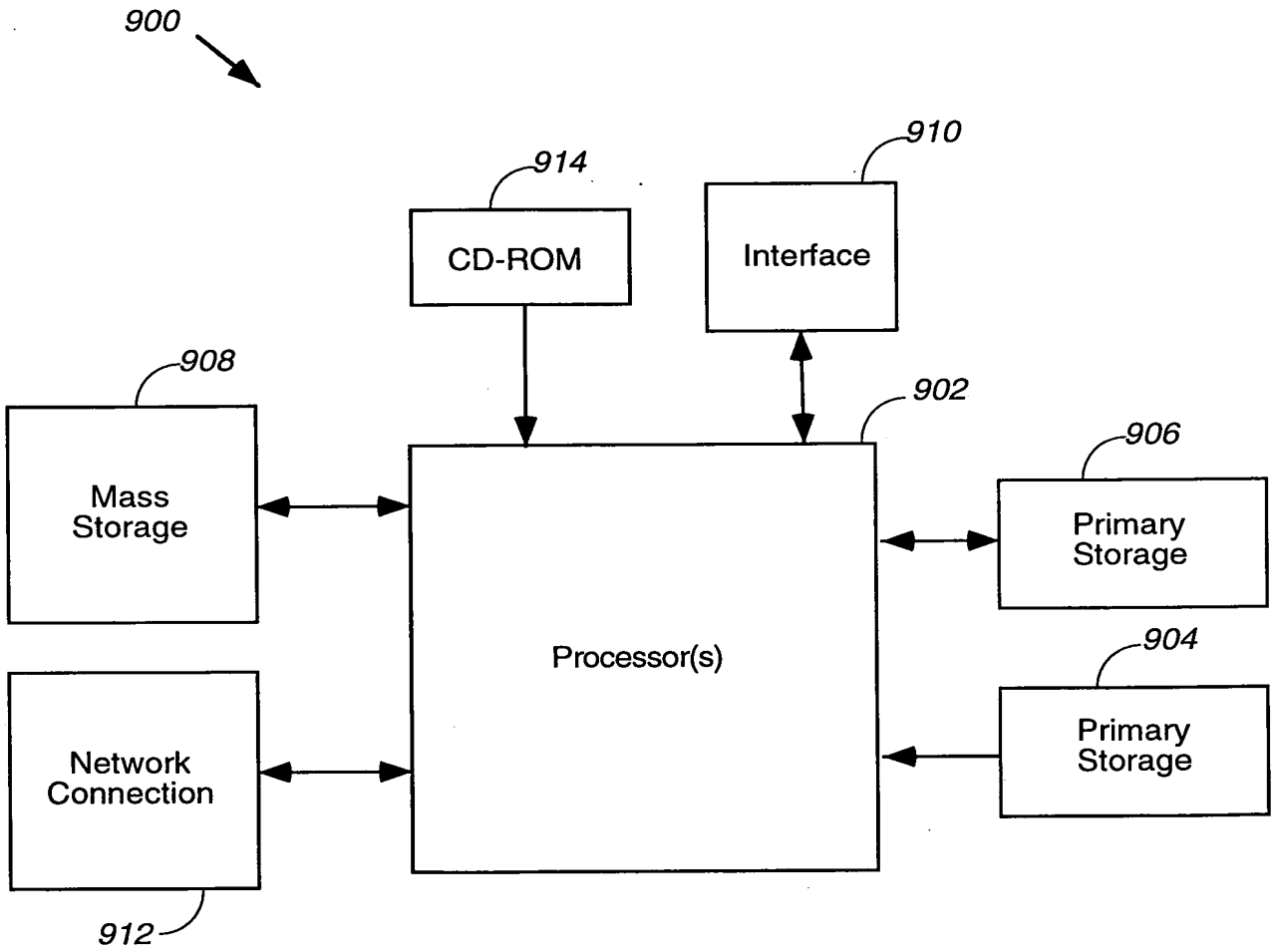

900
914
CD-ROM
910
Interface
908
Mass Storage
902
906
Primary Storage
Processor(s)
904
Primary Storage
Network Connection
912

FIG. 23